ABSTRACT

A modified diene- α -olefin copolymer which is represented by the formula (1) below and has $H_2C=C\left(R^5\right)-COO-$ in at least a part of the ends.

$$R^{1} \xrightarrow{\text{CH-CH=CH-CH}_{2}} \xrightarrow{\text{CH-CH}_{2}} \xrightarrow{\text{CH-CHR}^{3}} \xrightarrow{\text{m}} \xrightarrow{\text{CH}_{2}} \xrightarrow{\text{CH}_{2}} \xrightarrow{\text{R}^{6}} \xrightarrow{\text{R}^{6}} \xrightarrow{\text{R}^{2}} \xrightarrow{\text{R}^{2}}$$

$$(1)$$

wherein R^1 and R^2 independently represent a hydroxyl group or $H_2C=C(R^5)-COO-$, R^3s , R^5s , and R^6s are independently represent a hydrogen atom or an alkyl group having 1 to 10 carbon atoms, R^4s independently represent a phenyl group, a pyridyl group, a chlorine atom, a cyclohexyl group, or a carbonyloxyalkyl group, and 1, m, and n represent the number of repetition.